Some aspects of the history of zemstvo sanitary medicine's development: on biography of I.I. Molleson

Irina V. Myasnikova, Arkady I. Zavyalov FSBEI HE V.I. Razumovsky Saratov SMU MOH Russia 112 Bolshaya Kazachya St., Saratov 410012, Russia

Milestones are presented in the life and work of I.I. Molleson (1842–1920) – one of the first zemstvo public health doctors of Russia. Having successfully graduated in 1865 from the Faculty of Medicine of the Imperial Kazan University, Molleson joined the zemstvo service in the Buguruslan county of Samara province, then worked as a factory physician in the Spassky Zaton in the Kazan province. From 1869, Molleson was a zemstvo doctor for the Yaransk county in the Vyatka province where, on behalf of the Zemstvo county assembly, he produced an expanded plan and program of responsibilities for the public health doctor. In June 1871, Molleson was invited by the chairman of the Perm provincial council, D.D. Smyshlyaev, to take up the position of attending physician at the Zemstvo district hospital, and in 1872 – to take the position of provincial public health doctor. A year later, Molleson first began working as a zemstvo doctor and then as a public health doctor in Shadrinsk district of the Perm province, where, at the county rural council, he organized and headed at Russia's first medical and health council, which directed all the medical activities of the county. After the transfer of the medical-sanitary council to the advisory body, Molleson left as chairman of the service, and returned to the position of Zemstvo district doctor in the Olkhovsky medical district, where for the first time in Russia, charity funds were used to organize a seasonal nursery. During the Russian-Turkish War, he was drafted into the army, and served eight months as a regimental doctor. In 1879, for eight months, Molleson was seconded to fight the plague in the Astrakhan province. In 1881-1883, he worked as a zemstvo doctor in Irbit, then worked as an editor of two publications (Perm Zemstvo Digest and Perm Epidemiological Paper) in the Perm Province's Zemstvo District. Thereafter, Molleson headed the public health bureau in Saratov (1889–1897), Tambov (1897–1906) and Kaluga (1906–1911) provinces. He actively participated in preparing and conducting provincial Zemstvo district doctor congresses, edited magazines, published a number of scientific papers on the state of the general population's health and organized public health affairs. In conclusion, Molleson is considered to have made a significant contribution to the development of zemstvo public health medicine.

Keywords: I.I. Molleson, zemstvo doctor, sanitary doctor, public health

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About the authors

Irina Vladimirovna Myasnikova – Assistant at the Department of the Public Health and Healthcare with course of Law and History of Medicine, FSBEI HE V.I. Razumovsky Saratov SMU MOH Russia (Saratov, Russia). E-mail: ivm85@yandex.ru Arkady Ivanovich Zavyalov – Doctor of Medical Sciences, Professor at the Department of the Public Health and Healthcare with course of Law and History of Medicine, FSBEI HE V.I. Razumovsky Saratov SMU MOH Russia (Saratov, Russia). E-mail: ark.zavyalow@yandex.ru

Ivan Ivanovich Molleson (1842–1920) will go down in the history of domestic medical science as one of the most distinguished domestic zemstvo¹ public health doctors. He made a vital contribution to the establishment and development of public health in Russia between the second half of the 19th century and the beginning of the 20th

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century. I.I. Molleson developed working procedures and approaches to solving public health problems, incorporated health statistics into medical practice, furthered public health education and was involved in organizing the fight against epidemics [1]. In domestic periodicals, researchers published numerous articles about this prominent representative of zemstvo medicine. However, the articles are usually fragmented and reflect only some aspects of his 46-year practice.

I.I. Molleson was born on 22 February (6 March, New Style) 1842 in Irkutsk to the family of a district police chief in the mining

¹ Zemstvo was a form of local government in the Russian Empire.

department. In early childhood he moved to Kazan with his mother after the death of his father. From 1856 to 1860 he studied at the 1st Kazan Male Gymnasium and then later enrolled at the faculty of medicine of the Imperial Kazan University, from which he successfully graduated on 31 August 1865 as a physician. While at the university, I.I. Molleson took an interest in public health research and practice. In 1864, while a

fourth-year student, he wrote his first scientific paper, titled "Thermometry in diagnostic, therapeutic and prognostic relationships", for which he won a gold medal.²

Given I.I. Mollenson's aptitude for research, the faculty of medicine of the Imperial Kazan University in May 1865 petitioned the University Council to allow him to remain at the university for further training in the field of pathological anatomy, in which he had developed a keen interest. However, the trustee of the Kazan educational district rejected the petition.³

Due to "straitened financial circumstances of his family", I.I. Molleson was forced to relinquish any ideas of an academic career and

the very day after graduating from university (1 September 1865), he joined the zemstvo service in the Buguruslan county of Samara province. A year later (7 September 1866), when the financial circumstances of his family had considerably improved, he approached the faculty of medicine with a request to be sent, at least for a year, to the Imperial Kazan University for further training in the field of pathological anatomy. The faculty of medicine approved his request and sent a request to the trustee of the Kazan educational district. However, that request was also rejected. In his

response, the trustee wrote that I.I. Molleson "was not approved for his moral compass".⁴

I.I. Molleson worked in the Buguruslan county of Samara province until 1 December 1866, after which he took up the position of factory physician in machine shops at the Caucasus and Mercury Steamship Company in the Spassky Zaton of Kazan province. In October 1869 he left service in the Spassky Zaton and joined the zemstvo

service in Yaransk, Vyatka province, where he headed the city zemstvo hospital until June 1871. While a zemstvo doctor, in 1870 he put forward a proposal to the Yaransk county medical council to establish the position of public health doctor. The district council accepted the proposal.5 The county rural assembly decided "to invite a sanitary doctor, but first ask doctor I.I. Molleson to draft a detailed and comprehensive project" on the duties of the public health doctor and a program of activities of county and provincial public health doctors, whose tasks included studying public sanitation conditions.6 In November 1870 I.I. Molleson presented this project at a meeting of

the Kazan Society of Physicians, of which he had been elected a full member [2].

In June 1871, at the recommendation of A.V. Petrov, a professor of the faculty of medicine of the Imperial Kazan University, I.I. Molleson was invited by chairman of the Perm provincial zemstvo medical council, D.D. Smyshlyaev, to take up the position of attending physician of the provincial hospital. Six months later (in February 1872) he left the service after Perm province's zemstvo district offered him the position of Russia's first provincial public health doctor. However, due



Fig. 1. I.I. Molleson
in the early days of his work in the Perm
province.

From the National Archive of the

From the National Archive of the Republic of Tatarstan.

² National Archive of the Republic of Tatarstan. Kazan State Medical University Archive (KSMU Archive), I.I. Molleson's personal file. F. 977. Op. 616. D. 997. L. 1–9.

³ KSMU Archive. F. 977. Op. 517. Sv. 5. L. 1.

⁴ KSMU Archive. F. 977. Ed. hr. 916. L. 1–6.

⁵ State Archive of Kirov Region (SAKR). F. 616. Op. 1. D. 333. L. 144.

⁶ SAKR. F. 616. Op. 1. D. 333. L. 150–152 ob.

to a failed relationship with the chairman of the provincial zemstvo medical council, he was forced to leave after just a year.⁷

I.I. Mollenson worked in the Perm province for 17 years, during which he held various posts (fig. 1). From 1873 to 1876 he was zemstvo doctor of Shadrinsk county. At the county rural council, he organized Russia's first medical and health council, which comprised zemstvo doctors and members of the county medical council and ran the medical and health affairs of the county. I.I. Molleson was unanimously elected its chairman. The medical and health council paid special attention to improving healthcare delivery and tackling infectious diseases. For four years, I.I. Molleson was in charge of smallpox vaccination in the county and within a relatively short time he managed to organize extensive vaccination of the population against smallpox by inviting and training clergymen and local intellectuals to perform vaccination. The success of vaccination largely rests on the training of personnel, the quality of the vaccine, public awareness and meticulous recordkeeping (statistics). With these factors in mind, I.I. Molleson personally trained vaccinators and determined their permanent make-up. A special calf barn was built for smallpox vaccination in Verkh-Techenskoe village in 1873. Due to the poor quality of the smallpox vaccine, the zemstvo council shut down the calf barn in 1878 and started ordering the smallpox vaccine from Moscow and Saint Petersburg. The number of people vaccinated against smallpox in the county grew every year. While about 2,500 vaccinations were done in 1873, the figure had risen to about 5,000 by 1875. I.I. Molleson's card registration of the vital statistics of all newborns and persons that had been vaccinated against smallpox enabled qualitative and quantitative accounting of everyone vaccinated in the county.8

In 1873 the medical council encouraged the zemstvo county assembly "to invite a public health doctor to Shadrinsk county, who would have at his disposal a vaccination assistant, two paramedics, all vaccinators and one health inspector", and

presented an annual public health cost estimate of 7,000 rubles.

Soon after, I.I. Molleson was invited by the zemstvo county assembly to take up the position of public health doctor of Shadrinsk county. Although he had drafted a program for conducting the necessary health work the previous day, he turned down the offer.

At a regular zemstvo county assembly in 1876, while discussing the results of the medical council's work in the previous year, a question was unexpectedly raised about the legality of the medical and health council. I.I. Molleson defended the council's work, declaring, "The success of medical and health work in the county entirely depends on the council, to which the Shadrinsk county is indebted, as the medical organization of the county was pointed to as an example everywhere. Many zemstvo councils in the central part of Russia have reached out to the Shadrinsk council, inquiring about the work of the medical and health council. Some members of the council have published numerous works in the popular health magazine 'Health', published under the editorship of Professor A.P. Dobroslavin. These works were published in 1874, 1875 and 1876" [3].

I.I. Molleson could not save the medical and health council, but at the decision of the zemstvo assembly, it was left in the hands of an advisory board of the zemstvo county assembly. Thereafter, Molleson left and went on to work as a zemstvo doctor in the Olkhovsky medical district. Upon arrival at his new place of service, along with medical work, he also studied the health and sanitation conditions of workers at a milling plant, and for the first time in Russia, he used charity funds to organize seasonal nurseries.⁹

During the Russian-Turkish War in 1878, I.I. Molleson was drafted into the army by the Russian government, and for eight months he served as a regimental doctor. In 1879, after the war, Molleson was deployed to fight the Vetlyank plague in the Astrakhan province, where he remained for eight months. After leaving Astrakhan province, he visited Kazan "on personal matters", for which he had to give up a portion of his wages.

⁷ State Archive of Perm Krai. F. R-1756. in Shadrinsk (FGAKOSh). F. 492. Op. 1. Ed. hr. 2149. Op. 1. D. 67. L. 5. ⁸ Branch of the State Archive of Kurgan region in Shadrinsk. F. 492. Op. 1. Ed. hr. 2149. L. 2–4, 7–9, 13, 39, 40.

⁹ FGAKOSh. F. 492. Op. 1. Ed. hr. 2149. L. 73, 75, 83, 84.

After his deployment, I.I. Molleson returned to the Olkhovsky medical district, where until March 1881 he served as a zemstvo doctor. Thereafter he transferred to the Irbit county of Perm province, where he was a zemstvo doctor for about two years. Upon arrival at his new job, I.I. Molleson hit the ground running: a typhoid fever outbreak had to be dealt with and a series of anti-epidemiological measures aimed at eradicating the center of infection in one of the county districts had to be put in place.

In 1883, a medical and health council was established under the leadership of I.I. Molleson and with the support of the zemstvo assembly in the Irbit county, and a travelling system for providing medical assistance to the rural community was replaced with a mixed system. I.I. Molleson was actively engaged in issues relating to the construction of new hospitals in the county and the monitoring of health and sanitation conditions of students at five major schools. He gathered extensive statistics on the spread of scurvy among the rural population in the Perm province and introduced registration of patients, the number of whom spiked in the winter during years of bad harvest (cereal crops, potatoes and other vegetables) [3].

Family circumstances (the death of his wife) forced I.I. Molleson to temporarily leave service in the Irbit county during the spring of 1883 after. However, in the autumn of the same year, he received repeated invitations from the Perm provincial council to take up the position of editor of two publications: the Perm Zemstvo Digest and the Perm Epidemiological Paper. He agreed and edited these magazines until 1888. Through these publications, I.I. Molleson virtually masterminded the development of zemstvo medicine in the Perm province: the magazines published articles on the organization of zemstvo medicine and the state of public health in various medical districts. I.I. Molleson used the *Perm Zemstvo Digest* to prepare provincial zemstvo district doctor congresses. In the published articles he advanced new ideas and plans to restructure zemstvo medical affairs. He combined his editorial work with medical practice at a real school and a female gymnasium. From 1884 to 1885 he was senior doctor at the Perm zemstvo district hospital [5].

In August 1886, I.I. Molleson took part in the 3rd Perm zemstvo district doctor congress and presented four papers: "On forensic medical examination of zemstvo doctors in Perm province", "Medical councils in Perm province", "Some figures on the lower medical personnel in Perm province" and "On organization of the provincial public health council with the public health and statistics bureau, on the uniformity of recording forms of medical and statistical materials and doctor reports" (fig. 2).

Insistence on high standards and adherence to principle often led I.I. Molleson into disputes with zemstvo authorities and forced him to change workplaces frequently. Confrontations between doctors and zemstvo members were frequent in zemstvo medicine in the 1870–1880s. Observing this conflict, I.I. Molleson lamented, "So many clashes, so much energy, time and effort spent, how much the work suffers – perpetual war in a completely peaceful cause, and all without end" [6].

In December 1888 the Saratov provincial zemstvo assembly passed a resolution to set up a public health and statistics department (public health bureau), whose main purpose was "constant monitoring of public health, research and implementation of measures to improve public health and providing the public with proper medical care". To accomplish this goal, a collegial body — a county medical and health council — was established in each county. ¹⁰ The same year, the Saratov provincial zemstvo medical council invited I.I. Molleson to head the provincial public health and statistics department. He took up this position on 1 January 1889. ¹¹

The establishment of the public health organization in Saratov province was tied to the need for a more effective fight against epidemics, which broke out during the migration of seasonal workers and in bad harvest years.

Upon arrival in Saratov on 1 May 1889, I.I. Molleson embarked on a study of the state of hospital affairs in county zemstvos. He sent out a "Program of questions on hospitals, outpatient clinics, dispensaries and vaccination". The questionnaire contained 58 questions, answers to which painted a picture of the state of medicine

¹⁰ State Archive of Saratov region (SASR). F. 1191. Op. 1. Ed. hr. 2.

¹¹ SASR. F. 5. Op. 1. D. 926. L. 10-10 ob.

¹² SASR. F. 5. Op. 1. D. 791. L. 5, 6.



Fig. 2. Delegates of the 3rd Perm zemstvo district doctor congress (1886).

I.I. Molleson is third from the left in the top row. From the National Archive of the Republic of Tatarstan.

in counties of the Saratov province. I.I. Molleson toured 23 provincial county hospitals to confirm the results of the questionnaire, to personally meet with doctors and familiarize himself with the general nature of the counties and to establish zemstvo medicine in those counties.

Under the leadership of I.I. Molleson, the 5th provincial congress of doctors and zemstvo representatives of Saratov province was held in September 1889, where I.I. Molleson presented

three papers: "The report of the doctor, head of the public health bureau for 4 months (May-August 1889)"; "Zemstvo public health establishment in the province" and "Some tasks and work plan of the public health bureau". Generalization of the material from the reports enables the identification of underlying issues relating to the improvement of health care delivery and the development of public health (organizing and holding provincial health congresses), statistical

reporting on morbidity, study of birth rate and mortality and the need to publish the *Saratov Public Health Review*.¹³

At the 6th provincial congress of doctors and zemstvo representatives of Saratov province held in the autumn of 1890, I.I. Molleson presented three program reports: "On some organizational issues", in which he drew attention to the importance of uniformity of report forms for the public health and statistics bureau, as well as the introduction of filing for all syphilis patients; "On inter-county medical districts in the Saratov provincial zemstvo" and "On inter-county hospitals". The latter two reports sparked a lively discussion among congress delegates, but no decisions were made due to lack of investigation of the issues and insufficient funding.¹⁴

A special bulletin – a biweekly magazine titled the *Saratov Public Health Review* – was published beginning in 1891 at the initiative of I.I. Molleson and by the decision of the provincial zemstvo assembly. According to the approved program, the magazine, which was edited by I.I. Molleson, published information on diseases and epidemiological materials, demographics (mortality statistics), articles and papers on medical statistics and topography, scientific and public reviews from other publications, articles from the medical practice of zemstvo doctors and announcements.

In his opening remarks to readers of the new publication, I.I. Molleson defined its composition and objectives as a public mouthpiece. He noted, "This can never be about any royalties, and the matter rests only on moral interests, which form the foundation of the publication itself" [8]. In a relatively short time, the bulletin gained wide popularity among doctors in Samara province and beyond. The new publication played a key role in the development of zemstvo public health in the province and in combating cholera, diphtheria and typhus fever outbreaks. Each edition of the magazine published data on the epidemiological

situation in the province, reports on the activities of doctors in the counties and minutes of meetings of the executive public health committee, of which I.I. Molleson was a member.

The typhus fever outbreak in 1891–1893 was a strenuous test for zemstvo doctors and the public health bureau of Saratov province. In the first six months of 1892 alone, the province's city hospital had 259 patients on treatment, with a case fatality rate of 8.9%.

Under the leadership of I.I. Molleson, zemstvo doctors put enormous effort into combating the infectious disease. Zemstvo doctors shut down parochial schools in the villages. In homes with patients, they disinfected premises and clothes with chlorine and mercuric chloride. Some counties had typhus fever brigades for identifying and treating patients and those who had contact with the patients. Furthermore, doctors spoke with peasants on proper patient care and hygiene basics [9].

The first data on the diphtheria infection rate in Saratov province was published in 1891 in the *Saratov Paper* magazine. Early in 1891, public health bureau head I.I. Molleson said "It was time the zemstvo and doctors immediately paid serious attention to the spread of diphtheria, while there was still time and the danger had not yet grown to threatening proportions" [7].

The zemstvo doctors and medical societies intensified their fight against the diphtheria epidemic in 1894. Equipment was purchased and a station set up for producing antitoxin serum. Count A.D. Nesselrode sent a request to Prince A.P. Oldenburgsky to allow the Saratov district council to keep a stable and horses at the Institute of Experimental Medicine. The request was granted. At the same time, I.I. Molleson made a similar request to the Imperial Kazan University to Professor N.F. Vysotsky, who set up his own production of blood serum for the Saratov province [9].

The cholera epidemic which broke out in the Saratov province in 1892 was a litmus test for efficiency, not only for the public health bureau but also for the entire zemstvo medicine. At an extraordinary provincial congress of doctors and zemstvo representatives held on 25 June 1892, a raft of measures was developed — including the establishment of a public health council, the opening of temporary cholera clinics and

¹³ 5th provincial congress of doctors and zemstvo representatives of Saratov province (reports, papers, minutes, announcements and attachments). Saratov, 1889. P. 1–66; 294–310.

¹⁴ 5th provincial congress of doctors and zemstvo representatives of Saratov province (reports, papers, minutes, announcements and attachments). Saratov, 1890. Issue 1. P. 1–57.

barracks and the enlistment of senior medical students in anti-epidemiological activities — aimed at organizing the fight against this epidemic [10]. The provincial zemstvo assembly (4 July 1892) made a resolution to set up the executive public health committee of the Saratov zemstvo district council, headed by council chairman A.N. Bezobrazov. This committee was entrusted with the overall management of anti-epidemiological measures and epidemiological monitoring in the province. It comprised members of the zemstvo council and the public, as well as head of the public health bureau I.I. Molleson, and several doctors [11].

Representatives of the zemstvo assembly put forward a proposal to give the executive public health committee sweeping powers and to allow it to review measures and budgets drafted by county executive public health committees, as well as to alter and supplement them at its own discretion depending on the spread of the cholera epidemic.

During the cholera epidemic which broke out in Saratov province on 9 June 1892, I.I. Molleson initiated the emergency setup of 24 coastal sanitary groups and 38 groups within the counties (on main routes and railway lines), which were equipped with everything necessary to treat and quarantine patients. Forty mobile sanitary groups equipped with medicines and disinfectants were also actively working. All steam vessels and trains were fitted with special cholera cabins and wagons with medical personnel. The province also invited 100 doctors, senior medical students and paramedics. Nuns were hired as nurses. ¹⁵

In order to collect accurate statistical data, the executive public health committee turned to zemstvodoctorsattheinstruction of I.I. Molleson with a request to provide information on the spread of the cholera epidemic, the sanitary state of drinking water sources in population centers, the implementation of treatment and disinfection measures and the number of patients. These data had crucial practical value for the implementation of timely anti-epidemiological measures [12].

I.I. Molleson was working fifteen hours a day. He studied counties' current medical documents, held negotiations with numerous temporary staff,

distributed medicines, tents, clothes, etc. Despite the sanitary and epidemiological measures implemented during the epidemic of 1892 in Saratov province, about 15,000 of the 40,000 cholera patients died, or about 37.5% [13].

In the autumn of 1892 at the request of I.I. Molleson, 10 doctors and 10 paramedics were retained from the temporary medical staff and were tasked with gathering complete information on the health situation in the province, which was necessary for studying the situation and predicting how the cholera epidemic would unfold.

In light of the typhus fever outbreak in the province, in early June 1892, the public health bureau organized and held an extraordinary (special) congress of doctors and zemstvo representatives under the leadership of I.I. Molleson. Its objective was to implement and coordinate sanitary and epidemiological measures aimed at preventing the further spread of the disease. The next extraordinary congress, held on 12 January 1894, discussed measures to tackle and prevent diphtheria. 16

At the meeting of the sanitary and epidemiological committee held on 5 December 1894, provincial zemstvo chairman V.V. Kruber drew attention to the inadequate organization of the work of the public health bureau and the measures implemented by the bureau in four years to combat the diphtheria epidemic. Medical workers charged with tackling diphtheria failed to justify the trust shown in them since the number of patients increased every year despite doctors' efforts. The increase was attributed to the shortage of antidiphtheric serum in the province at that time. This incident led to tensions between A.A. Kruber and I.I. Molleson [14].

In August 1894 the 7th congress of zemstvo doctors and representatives of the Saratov province supported the initiative of the health society to open a female paramedic school in Saratov with four-year training, and sent a petition on this matter to the provincial zemstvo assembly. The highest permission to open the school was only

¹⁵ SASR. F. 5. Op. 1. D. 1157. L. 8, 9.

¹⁶ Extraordinary congress of doctors and zemstvo representatives of Saratov province 2–4 June 1892: On combating typhus fever and scurvy. Saratov, 1892; Extraordinary congress of doctors and zemstvo representatives of Saratov province 12 January 1894: On measures to combat and prevent diptheria, Saratov, 1894.

granted on 11 December 1895. In the spring of the following year, I.I. Molleson was appointed head of the first aid/obstetric school, which became the first educational institution in the Saratov province to train mid-tier medical workers.¹⁷

In December 1896 the city Duma and the provincial zemstvo assembly decided to merge the *Saratov Public Health Review* and *Zemstvo Week* magazines into one publication to be edited by chairman of the provincial council. I.I. Molleson was fired from his position as editor. He tried to establish a new publication titled *Povolzhye Public Health Review* but could not get permission. The next phase of the dispute was his letter, published in the *Doctor* magazine in 1896, which made reference to his failed relationship with the provincial leadership. As a result of his letter, I.I. Molleson was dismissed from zemstvo service, and the public health bureau was dissolved.

The first aid/obstetric school remained I.I. Molleson's primary workplace, but soon relations between the board of the public health society and teachers soured due to insufficient funding and wages. Thus I.I. Molleson was compelled to hand in his resignation as head of the school to the governor on 12 March 1897. He left service in the Saratov province on 15 April 1897. 18

Being a capable organizer and experienced public health doctor, I.I. Molleson soon received an invitation to work for the Tambov provincial zemstvo district. He was to establish and head the public health department of the provincial medical council. The Tambov medical society, of which he was elected member, and the 3rd provincial zemstvo district doctor congress, played a key role in his appointment.

I.I. Molleson accepted the invitation of the Tambov provincial zemstvo. He moved to Tambov in the spring and began to actively address issues relating to public health affairs in the province. Thanks to his accumulated experience, 19 he managed to form a public health organization over a short period of time. The organization had an annual budget of 3880 rubles, of which

300 rubles was set aside for the publication of an epidemiological paper.²⁰

I.I. Molleson began his work as head of the public health department in the Tambov province with a visit to all counties and medical districts. He met with all zemstvo doctors and in two years he managed to organize the collection of public health statistics, based on whichthe public health department in 1899 published its first qualified report for 1898 on infectious diseases in the province. Under the editorship and with the direct involvement of I.I. Molleson, the Infectious Disease Paper came out that same year. The magazine was later published under the title Public Health Review and then Medical and Health Chronicles of Tambov Province. The digest was published until 1916 and served as the primary source of theoretical and practical knowledge and information about the epidemiological situation in the province for zemstvo doctors. Also, the publication of mandatory public health bylaws for factories, as well as draft mandatory sanitary rules at enterprises, began in 1904.

In his 9 years of work in the Tambov province, I.I. Molleson had a massive effect on the formation and development of medical practice for both medical workers and the general public. He paid special attention to matters relating to the sanitary enlightenment of peasants. He regularly delivered public lectures dealing with sanitation and hygiene, considering it to be his moral and professional duty. He also initiated publications on the development and implementation of measures to combat epidemics in the province and was the only author at that time of rigorous research on incidences of tuberculosis and malignant tumors.

As a full member of the Tambov Medical Research Society, I.I. Molleson was actively involved in its work and had a tremendous influence on the focus area of its activities — the prevention of infectious diseases in the province. Thanks to his efforts and those of the medical community, summer nursery shelters were organized in seven counties of the Tambov province in 1902.

I.I. Molleson strove to integrate modern diagnostic equipment into medical practice. At his

¹⁷ SASR. F. 87. Op. 1. D. 857. L. 6.

¹⁸ SASR. F. 1. Op. 1. D. 5628.

¹⁹ I.I. Molleson had previously worked in zemstvos in Samara, Kazan, Perm, Vyatka and Saratov provinces.

²⁰ State Archive of Tambov Region. F. 30, 35, 89. D. 1797—

suggestion, the zemstvo medical council decided in 1900 to build an X-ray room at the Tambov zemstvo district hospital. The equipment, which was installed the following year, significantly expanded capabilities and improved diagnosis of visceral diseases, consequences of orthopedic trauma and arthronosos [15].

placed emphasis I.I. Molleson on organizing and conducting regular congresses of zemstvo doctors and zemstvo representatives. At the congresses he usually presented indepth reports on urgent measures to prevent and combat infectious diseases. From 1897 provincial congresses of zemstvo doctors were held annually. The themes were constantly expanding and the congresses were assuming a more practical nature. Issues discussed included the rationalization of the activities of rural medical districts, the establishment of inter-county medical districts, the increase of summer nursery shelters, the expansion of public obstetric and surgical assistance and immunization against smallpox and diphtheria. Seven zemstvo district doctor congresses were held under the leadership and with the direct participation of I.I. Molleson [16].

Thanks to I.I. Molleson's efforts, most counties in the province for the first time formed public health councils consisting of medical district members, doctors and public health trustees. Furthermore, thanks to the support of the medical community and the medical district, seasonal nursery shelters were set up in counties in the province and the necessary conditions were set up for opening an anti-tuberculosis clinic.

During his time working in the Tambov provincial zemstvo, I.I. Molleson published several scientific reports presenting full information on the spread of infectious diseases, on the impact of seasonal work on the spread and on morbidity and mortality rates in the province ("Brief review of predominant infectious diseases in Tambov province in 1900"; "Brief outline of some data on seasonal work in Tambov province in 1899"; "Brief outline of morbidity and mortality in Tambov province in three years 1898–1900"; etc.) [15].

At the 10th zemstvo district doctor congress, I.I. Molleson presented the in-depth report "On morbidity and mortality in Tambov province for

three years in 1898–1899 and in 1900", which was based on accurate statistics. At the end of his presentation, he proposed to organize and hold the first provincial meeting devoted to the development of the most efficient methods of tackling epidemics, and received the support of members of the Tambov Medical Society [16].

The Imperial Kazan University celebrated its 100th anniversary in 1904. To mark the event, the faculty of medicine proposed that the Council introduce the title of Honorary Doctor of Medicine. On the day of the anniversary, two prominent public health doctors – E.A. Osipov and I.I. Molleson²¹ – were awarded honorary doctorates for their enormous academic and research contributions to the development of zemstvo medicine and the establishment of public health in Russia [17].

Due to a failed relationship with the provincial medical district, I.I. Molleson was forced to quit service in the public health department in 1905, and in the summer of the same year, at the invitation of the Kaluga zemstvo district council, he took up service in the Kaluga zemstvo as head of the public health bureau. Among the primary objectives which I.I. Molleson set for the Kaluga public health bureau was the study of the climate and environment, soil and crop yield, price of food, drinking water sources, housing, occupation of the general public, severity of working conditions, size of wages and lifestyle. In order to study the level of sanitation in living quarters, working and living conditions and causes of diseases and to develop effective measures to combat diseases, he proposed the introduction of special public health doctors everywhere and laid out an extensive program for their activities. During his six years of working in the Kaluga zemstvo, many of these issues were addressed in his fundamental works: "Outline of organization and distribution of zemstvo medical assistance in Kaluga province by 1 July 1905" (Kaluga, 1906); "Brief outline of birth rate and mortality of the Orthodox population in Kaluga province in the 1901, 1902 and 1903" (Kaluga, 1907) and "Brief outline of seasonal work in Kaluga province with respect to sanitation" (Kaluga, 1907).

²¹ National Archive of the Republic of Tatarstan. F. 977 (1904). D. 2347. L. 11.

Publication of the Kaluga Public Health Review began in 1907 under the editorship of I.I. Molleson. The magazine published articles on the work of county public health councils and the activities of various committees, as well as statistical reports from zemstvo doctors, which gave a complete picture of the state of zemstvo medicine and the sanitary and epidemiological situation in the province [18].

In 1909 the staff of the provincial public health bureau was considerably expanded by the addition of invited public health doctors. The first six specialists were sent to Kaluga, Kozelsky, Tarussky, Borovsky and Meshovsky counties. I.I. Molleson put in enormous efforts to establish laboratories in counties and facilitated the deployment of doctors for supplementary courses for studying hygiene and sanitation research methods.

The first public health charity trusteeships, which comprised local peasants and rural clergymen, landowners and teachers, emerged in Kaluga province in 1910. With their assistance, lectures were organized for public health doctors on the most popular topics (on drinking water and water supply on baby feeding, combating infectious diseases, etc.).

After many years of service, at the decree of the provincial zemstvo district, I.I. Molleson was awarded a lump-sum grant of 1,000 rubles for his invaluable contribution to the development of public health in the Kaluga province. However, he declined the grant and donated 500 rubles each towards the improvement of water supply in villages in Borovsky and Kaluga counties [19].

In the autumn of 1911, I.I. Molleson left zemstvo service in the Kaluga province for health reasons. His official farewell ceremony was held on 4 October and was attended by representatives of provincial and county zemstvo councils, doctors from the Kaluga zemstvo district hospital and all the public health doctors of the province [20]. After retiring from service, I.I. Molleson left Kaluga for Voronezh, where he immediately took up public work. He was soon elected member and then vice-chairman of the Voronezh branch of the Russian Society for the Protection of Public Health, where he did pro bono work until October 1917. During this period he was actively involved in the work of the Voronezh Society of Public

Universities and provincial congresses of zemstvo doctors and representatives of zemstvo councils. He wrote several essays on the development of public health in the zemstvo districts in Russia where he had worked [21].

On 1 September 1890 the whole medical community of Russia celebrated the 25th anniversary of the medical work of I.I. Molleson, demonstrating the love and respect he commanded [4]. Congratulations from all zemstvo districts of Russia testified to the degree of recognition of his service [22].

I.I. Molleson is the author of numerous scientific works, a large portion of which are devoted to disease in the zemstvo districts where he worked as head of the public health bureau, sanitation conditions in communities, tackling epidemics, the demographic situation, school sanitation, and the history of the establishment and development of zemstvo medicine. He was a member of numerous medical societies in Russia: Kazan Society of Physicians, Saratov Physical and Medical Society, Saratov Public Health Society, Tambov Physical and Medical Society, Penza Medical Society, Kaluga Society of Physicians, the Voronezh branch of the Russian Society for the Protection of Public Health and Kharkov Medical Society.

I.I. Molleson died in Voronezh on 18 December 1920, aged 79. His obituary was only published a year later in the milestone edition of the Pirogov Society's magazine *Public Doctor*. ²²

I.I. Molleson is part of the galaxy of distinguished Russian doctors whose work covers a vast spectrum of problems. He made a vital contribution to the development of zemstvo medicine, social hygiene and health service in Russia, as well as to the most diverse areas of medical and public health service. As a sign of profound respect and recognition of I.I. Molleson's service to the development of zemstvo medicine and public health, the Shadrinsk county in 1978 put up a memorial plaque on the building of the city's sanitary and epidemiological station, which was also named after him. One of the streets in Shadrinsk is named after I.I. Molleson. Medical history museums in Tambov and Kaluga also showcase his research, academic and public work.

²² Public doctor. 1922, No. 1–2.

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About the authors

Irina Vladimirovna Myasnikova – Assistant at the Department of the Public Health and Healthcare with course of Law and History of Medicine, FSBEI HE V.I. Razumovsky Saratov SMU MOH Russia (Saratov, Russia)

Arkady Ivanovich Zavyalov – Doctor of Medical Sciences, Professor at the Department of the Public Health and Healthcare with course of Law and History of Medicine, FSBEI HE V.I. Razumovsky Saratov SMU MOH Russia (Saratov, Russia)